# INDEX


Ablation, auditory cortex, 435, 443
——, prestriate cortex, 191
Acetylcholine esterase, quantitative distribution of, in cerebral cortex, 115
Action potential, intraretinal, 75
Activation, thalamic, induced by click stimuli, 343, 359, 381
——, ——, induced by pure tones, 381
Activity, cortical, spreading depression of, 487
——, electrical, in cervical cord, 281
——, motoneuron, effect of strychnine on, 257
——, spontaneous, after amygdaloid lesions, 421
Age, effect of, on exteroceptive abdominal reflexes, 291
AIDAR, O., GEOHEGAN, W. A., and UNGEWITTER, Luise H. Splanchnic afferent pathways in the central nervous system, 131
AMASSIAN, V. E. See PATTON, H. D., 245
Amygdala, lesions of, and food intake, 421
——, ——, and spontaneous activity, 421
ANAND, B. K. and BROBECK, J. R. Food intake and spontaneous activity of rats with lesions in the amygdaloid nuclei, 421
Anesthesia, effect of, on sympathetic ganglia, 91
——, ——, on threshold movements, 319
Area 6, projection of, to brain stem, 87
Area, prestriate, effect of ablation of, 191
——, somatic, effect of ablation of, 401
Areas, cerebellar and cerebral, 27
——, ipsilateral facial, 1
Asphyxiation, cortical, and spreading depression, 487
Association, auditory-visual, after cortical ablation, 191, 435
Auditory conditioning, 149, 191, 435, 443
Auditory-visual association, effect of cortical ablation on, 191, 435
AUSTIN, G. M. See LILLY, J. C., 319
Axon, effect of injury to, 41

BERRY, C. M., HAGAMEN, W. D., and HINSEY, J. C. Distribution of potentials following stimulation of olfactory bulb in cat, 139
BICKERS, D. S. See PETERSON, E. W., 87
BISHOP, G. H. and CLARE, Margaret H. Sites of origin of electric potentials in striate cortex, 201
Brain stem, projection of cortical area 6 to, 87
BRECKENRIDGE, C. G. and HOFF, H. E. Influence of morphine on respiratory patterns, 57
BRECKENRIDGE, C. G. See HOFF, H. E., 47
BROBECK, J. R. See ANAND, B. K., 421
BROMILEY, R. B. See GALAMBOS, R., 359
BROOKS, C. McC. and FUORTES, M. G. F. Potential changes in spinal cord following administration of strychnine, 257
Bulb, olfactory, stimulation of, 139

Cat, auditory conditioning, 149
——, axon section and neuronal excitability, 41
——, cortical stimulation, 319
——, descending spinal pathways, 299
——, distribution of olfactory potentials, 139
——, electrical activity in cervical cord, 281
——, location of potential sources in cortex, 201
——, medial geniculate body, 343, 359, 381
——, monosynaptic and electromyographic testing, 409
——, photic potentiation of cortical response, 5
——, roughness discrimination, 401
——, selective action of anesthetics, 91
——, splanchnic afferent pathways, 131
——, sympathetic fibers of trunk dermatomes, 313
Cerebellum, cerebral connections to, 27
——, section of, and cerebellar seizures, 221
CHAMBERS, W. W. See LILLY, J. C., 319
CHANG, H.-T. Cortical response to stimulation of lateral geniculate body and the potentiation thereof by continuous illumination of retina, 5
CHATFIELD, P. O. See PURPURA, D. P., 281
Chorda tympani, response to single shock stimulation of, 245
CLARE, Margaret H. See BISHOP, G. H., 201
CLARK, S. L. and WARD, J. W. Observations on the mechanism of experimental cerebellar seizures, 221
Cochlea, effect of KCl and direct currents on, 497
Cord, cervical, electrical activity in, 281
——, spinal, effect of transection of, at lower cervical level, 299
——, ——, exteroceptive abdominal reflexes after transection of, 291
——, ——, potential changes in, after strychnine, 257
——, ——, splanchnic afferent pathways from, 131

Cortex, chorda tympani in, 245
——, effect of spreading depression on volume of, 487
——, amygdaloid, effect of removal of, 421
——, auditory, effect of ablation of, on auditory-visual association, 435
——, ——, effect of ablation of, on frequency discrimination, 149, 443
——, cerebral, dipeptidase and acetylcholine esterase in, 115
——, ——, effect of excitation of, on threshold movements, 319
——, motor, ipsilateral facial representation in, 1
——, ——, removal of, and abdominal reflexes, 291
——, optic, location of potential sources in, 201
——, prestriate, effect of ablation of, on auditory visual association, 191
——, visual, responses evoked in, by photic stimulation, 469

Depression, spreading cortical, vascular concomitants of, 487
Dermatomes, trunk, sympathetic fibers of, 313
Dipeptidase, quantitative distribution of, in cerebral cortex, 115
Discrimination, frequency, effect of cortical ablation on, 149, 443
——, roughness, 401
Dog, exteroceptive abdominal reflexes, 291
——, respiratory patterns, 47, 57

Ear, stimulation of, 191, 343, 359, 381, 435, 443, 497
Eldred, E. See Snider, R. S., 27
Evarts, E. V. Effect of ablation of prestriate cortex on auditory-visual association in monkey, 191
——. Effect of auditory cortex ablation on auditory-visual association in monkey, 435
——. Effect of auditory cortex ablation on frequency discrimination in monkey, 443
Excitability, effect of axon injury on, 41
——, reflex, changes in, during stretch, 409

Facilitation, autogenetic, 269
Fernández, C. See Tasaki, I., 497
Fibers, efferent, effect of excitation of, on threshold movements, 319
——, sympathetic, of trunk dermatomes, 313
Food, intake of, after amygdaloid lesions, 421
Frequency discrimination, effect of cortical ablation on, 149, 443
Fulton, J. F. Sir Charles Scott Sherrington, O.M. (1857–1952), 167
Funaishi, A. See Tomita, T., 75
Fuortes, M. G. F. See Brooks, C. McC., 257

Galambos, R. Microelectrode studies on medial geniculate body of cat. III. Response to pure tones, 381
Galambos, R., Rose, J. E., Bromiley, R. B., and Hughes, J. R. Microelectrode studies on medial geniculate body of cat. II. Response to clicks, 359
Galambos, R. See Rose, J. E., 343
Geohegan, W. A. See Aidar, O., 131
Glees, P. Ludwig Edinger, 251
Granit, R. Reflexes to stretch and contraction of antagonists around ankle joint, 269
Granit, R. and Job, C. Electromyographic and monosynaptic definition of reflex excitability during muscle stretch, 409

Hagamen, W. D. See Berry, C. M., 139
Hinsey, J. C. See Berry, C. M., 139
Hippocampus, olfactory potentials from, 139
Hoff, E. C. See Kell, J. F., Jr., 299
Hoff, H. E. and Breckenridge, C. G. Levels of integration of respiratory patterns, 47
Hoff, H. E. See Breckenridge, C. G., 57
Hughes, J. R. See Galambos, R., 359

Inhibition, autogenetic, 269
——, gastrocnemius autogenetic, 269
Innervation, afferent, of trunk dermatomes, 313
——, reciprocal ankle, 269
Isocortex, somatosensory, axonal and dendritic components of, 115

Job, C. See Granit, R., 409

Kell, J. F., Jr. and Hoff, E. C. Descending spinal pathways mediating pressor responses of cerebral origin, 299

Larrabee, M. G. and Posternak, J. M. Selective action of anesthetics on synapses and axons in mammalian sympathetic ganglia, 91
Lateral geniculate body, cortical response to stimulation of, 5
Lauer, E. W. Ipsilateral facial representation in motor cortex of macaque, 1
Leão, spreading cortical depression of, 487
Lesse, H. See Wagman, I. H., 235
Lilly, J. C., Austin, G. M., and Chambers, W. W. Threshold movements produced

by excitation of cerebral cortex and efferent fibers with some parametric regions of rectangular current pulses (cats and monkeys), 319
Localization, cortical, of taste, 245

Medial geniculate body, microelectrode studies on, 343, 359, 381
MEYER, D. R. and WOOLSEY, C. N. Effects of localized cortical destruction on auditory discriminative conditioning in cat, 149
Monkey, auditory cortex ablation, 435, 443
——, cerebro-cerebellar relationships, 27
——, cortical stimulation, 319
——, diffuse thalamic projection system, 449
——, ipsilateral facial representation, 1
——, prestriate cortex ablation, 191
——, projection of cortical area 6 to brain stem, 87
MONNIER, M. Retinal, cortical and motor responses to photic stimulation in man. Retino-cortical time and opto-motor integration time, 469
Morphine, effect of, on respiration, 57
Movements, ipsilateral facial, 1
Muscle, effect of stretch on, 409

Nerve, auditory, click stimulation of, 343, 359, 381
——, chorda tympani, projection zone of, 245
——, splanchnic, afferent impulses from, 131
——, ulnar, conductance of, 235
Nerve impulse, slowing of, in old age, 235
Neurons, cortical, course of activation of, 201
Nuclei, amygdaloid, effect of lesions of, on food intake and spontaneous activity, 421

Pathways, descending spinal, 299
——, pain, from arteries, 313
——, splanchnic afferent, in central nervous system, 131
Patterns, respiratory, 47, 57
PATTON, H. D. and AMASSIAN, V. E. Cortical projection zone of chorda tympani nerve in cat, 245
PETERSON, E. W. and BICKERS, D. S. Projections of cortical area 6 to brain stem in monkey, 87
POPE, A. Quantitative distribution of dipeptidase and acetylcholine esterase in architectonic layers of rat cerebral cortex, 115
POSTERNAK, J. M. See LARRABEE, M. G., 91
Potentials, electric, sites of origin in striate cortex, 201
——, olfactory, distribution of, 139
Potentiation, photic, of cortical response, 5
Projection, cortical, of chorda tympani, 245
——, diffuse thalamic, 449
PURPURA, D. P. and CHATFIELD, P. O. Electrical activity of single units in cervical cord, 281

Rabbit, location of potential sources in cortex, 201
Rat, effect of lesions of amygdaloid nuclei, 421
——, enzyme distribution in cortex, 115
——, food intake and spontaneous activity, 421
——, selective action of anesthetics, 91
Reflexes, exteroceptive abdominal, 291
Region, parametric, of rectangular current pulses, 319
RENSHAW, B. and ROSENBAUM, H. E. Does injury to an axon promptly induce altered excitability in its cell of origin?, 41
Respiration, patterns of, 47, 57
——, effect of morphine on, 57
——, effect of vagotomy on, 47
Response, cortical, photic potentiation of, 5
——, cochlear, effect of sound stimuli on, 497
——, ——, effect of KCl and direct currents on, 497
——, monosynaptic, at muscle tension, 409
——, retinal, cortical and motor, to photic stimulation, 469
Retina, illumination of, 5
——, intraretinal action potential, 75
ROSE, J. E. and GALAMBOS, R. Microelectrode studies on medial geniculate body of cat. I. Thalamic region activated by click stimuli, 343
ROSE, J. E. See GALAMBOS, R., 359
ROSENBAUM, H. E. See RENSHAW, B., 41

Seizures, cerebellar, mechanism of, 221
SHERRINGTON, Sir Charles [Obituary], 167
SMITH, H. M. See VAN HARREVELD, A., 313
SNIDER, R. S. and ELDRED, E. Cerebro-cerebellar relationships in the monkey, 27
Somesthesis, 401
Spinal cord. See Cord, spinal
STAMM, J. S. See VAN HARREVELD, A., 487
STARZL, T. E. and WHITLOCK, D. G. Diffuse thalamic projection system in monkey, 449
Stimulation, effect of, on olfactory bulb, 139
——, acoustic, effect of, on medial geniculate body, 343, 359, 381
——, cerebellar, seizures from, 221

——, cerebral cortical, 1
——, cortical, 319
——, photic, responses to, 469
——, thalamic, 449
Stimuli, sound, effect of, on cochlea, 497
Strychnine, effect of, on area 6, 87
——, ——, on intraretinal action potential, 75
——, spinal actions of, 257
Synaptic transmission, selective action of anesthetics on, 91
System, diffuse thalamic projection, 449

TASAKI, I. and FERNÁNDEZ, C. Modification of cochlear microphonics and action potentials by KCl solution and by direct currents, 497
Taste, cortical localization of, 245
TEN CATE, J. Exteroceptive abdominal reflexes in dogs, 291
Testing, monosynaptic and electromyographic, 409
Tetanus, strychnine, 257
Thalamus, acoustic system in, 343, 359, 381
——, projections of, 449
TOMITA, T. and FUNAISHI, A. Studies on intraretinal action potential with low-resistance microelectrode, 75
Touch, sensation of, 401

UNGEWITTER, LUISE H. See AIDAR, O., 131

Vagotomy, effect of, on respiration, 47
VAN HARREVELD, A. and SMITH, H. M. On a "sympathetic" component in the afferent innervation of trunk dermatomes, 313
—— and STAMM, J. S. Vascular concomitants of spreading cortical depression, 487
Velocity, conduction, effect of age on, 235
Visual-auditory association, effect of cortical ablation on, 191, 435

WAGMAN, I. H. and LESSE, H. Maximum conduction velocities of motor fibers of ulnar nerve in human subjects of various ages and sizes, 235
WARD, J. W. See CLARK, S. L., 221
WHITLOCK, D. G. See STARZL, T. E., 449
WOOLSEY, C. N. See MEYER, D. R., 149

ZUBEK, J. P. Studies in somesthesis. II. Role of somatic sensory areas I and II in roughness discrimination in cat, 401

*Book Reviews*

BLACK, S. P. W. *The normal cerebral angiogram*, 163
FULTON, J. F. *Applied physiology*, 9th ed., 514
ROSE, J. E. *The thalamus of the Macaca mulatta; an atlas for use with the stereotaxic instrument*, 431
ROSVOLD, H. E. *Cerebral mechanisms in behavior, the Hixon Symposium*, 431
SANDOW, A. *The rheology of the cross striated muscle fiber with particular reference to isotonic conditions*, 513